IL-4 ACTS SYNERGISTICALLY WITH IL-1β TO PROMOTE LYMPHOCYTE ADHESION TO MICROVASCULAR ENDOTHELIUM BY INDUCTION OF VCAM-1

Abstract of the Disclosure

A therapeutic method of modulating the immune response, by administering to a patient an amount of IL-4 effective to promote peripheral blood lymphocyte adhesion to microvascular endothelial cells in lymphoid organs. The IL-4 is preferably coadministered with IL-1β.

An improved method of screening a cell line for the production of a binding partner that binds with a cell adhesion molecule, by contacting the binding partner with IL4-activated and nonactivated microvascular endothelial cells, and selecting binding partners that bind to the IL4-activated microvascular endothelial cells but not to the nonactivated microvascular endothelial cells. The selected binding partners may thereafter be tested for the ability to block lymphocyte binding to cytokine-activated endothelial cells. The binding partners are preferably also characterized by binding to human VCAM-1 and to IL4- or TNFα-activated bone marrow stromal cells. A representative embodiment is mAb 6G10 produced by hybridoma ATTC No. HB10519 .

A therapeutic method of modulating the immune response in a patient, by administering to the patient an agent that specifically binds to IL4-activated microvascular endothelial cells, in an amount effective to impede transmigration of lymphocytes that specifically bind to VCAM-1 from blood across postcapillary venules.